Amendments to the Claims:

The listing of claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled)

Claim 12 (currently amended) A method for determining a 5-Fluorouracil-based chemotherapeutic regimen for treating a tumor in patient comprising:

(a) obtaining a tumor sample from the patient;

(b) fixing at least a portion of said tumor sample in paraffin to achieve a fixed and paraffin embedded (FPE) tumor tissue sample,

(c)~~(b)~~ isolating mRNA from said FPE tumor tissue sample;

(d)~~(c)~~ subjecting the mRNA isolated from said FPE tumor tissue to amplification using a pair of oligonucleotide primers SEQ ID: 1~~, or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 1 under stringent conditions, wherein said isolated and purified oligonucleotide is capable of amplifying a portion of the 5' untranslated region and Exon 1 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 2~~, and

SEQ ID: 2 ~~or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 2 under stringent conditions, wherein said isolated and purified oligonucleotide is capable of amplifying a portion of the 5' untranslated region and Exon 1 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 1;~~

to obtain an amplified sample,

(e)~~(d)~~ determining the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in

the amplified sample;

(f)~~(e)~~ comparing the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in the amplified sample with a predetermined threshold level for *DPD* expression;

(g)~~(f)~~ determining a 5-Fluorouracil-based chemotherapeutic regimen for said patient based on the difference in amount of *DPD* mRNA in the amplified sample and the threshold level for *DPD* gene expression.

Claim 13 (previously presented) The method of claim 12, wherein said predetermined threshold level of *DPD* gene expression is about 2.0 to about 2.5 times that of an internal control gene expression level.

Claim 14 (previously presented) The method of claim 12 or 13, wherein said internal control gene is β-actin.

Claim 15 (canceled)

Claim 16 (currently amended) The method of claim 12 or 13, wherein the mRNA is isolated in the presence of an effective amount of chaotropic agent.

Claims 17-22 (canceled).

Claim 23 (currently amended) A method for determining a 5-Fluorouracil-based chemotherapeutic regimen for treating a tumor in a patient comprising:

(a) obtaining a tumor sample from the tumor;

(b) fixing at least a portion of said tumor sample in paraffin to achieve a fixed and paraffin embedded (FPE) tumor tissue sample,

(c)~~(b)~~ isolating mRNA from said FPE [a] tumor tissue sample;

(d)~~(c)~~ subjecting the mRNA isolated from said FPE tumor tissue to amplification using a pair of oligonucleotide primers SEQ ID: 7 ~~or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 7 under stringent conditions; wherein said isolated and purified oligonucleotide is capable of amplifying a portion of Exon 6 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 8;~~ and

SEQ ID: 8 ~~or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 8 under stringent conditions; wherein said isolated and purified oligonucleotide is capable of amplifying a portion of Exon 6 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 7;~~

to obtain an amplified sample;

(e)~~(d)~~ determining the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in the amplified sample;

(f)~~(e)~~ comparing the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in the amplified sample with a predetermined threshold level for *DPD* expression;

(g)~~(f)~~ determining a 5-Fluorouracil-based chemotherapeutic regimen for said patient based on the difference in amount of *DPD* mRNA in the amplified sample and the threshold level for *DPD* gene expression.

Claim 24 (previously presented) The method of claim 23, wherein said predetermined threshold level of *DPD* gene expression is about 2.0 to about 2.5 times that of an internal control gene expression level.

Claim 25 (previously presented) The method of claim 23[,] or 24, wherein said internal control

gene is β-actin.

Claim 26 (canceled).

Claim 27 (currently amended) A method for determining a 5-Fluorouracil-based chemotherapeutic regimen for treating a tumor in patient comprising:

(a) obtaining a tumor sample from the patient, and wherein said tumor sample is fixed and paraffin embedded (FPE);

(b) isolating mRNA from said FPE tumor tissue sample, wherein said tumor sample is heated to a temperature in the range of about 50 to about 100°C;

(c) subjecting the mRNA isolated from said FPE tumor tissue to amplification using a pair of oligonucleotide primers SEQ ID: 1~~, or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 1 under stringent conditions; wherein said isolated and purified oligonucleotide is capable of amplifying a portion of the 5' untranslated region and Exon 1 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 2~~, and
SEQ ID: 2 ~~or an oligonucleotide primer at least 80% identical therewith and hybridizes to a complement of SEQ ID NO: 2 under stringent conditions; wherein said isolated and purified oligonucleotide is capable of amplifying a portion of the 5' untranslated region and Exon 1 of a *Dihydropyrimidine Dehydrogenase (DPD)* mRNA isolated from fixed and paraffin embedded (FPE) tissue when used with SEQ ID NO: 1~~;
to obtain an amplified sample,

(d) determining the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in the amplified sample;

(e) comparing the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in

the amplified sample with a predetermined threshold level for *DPD* expression;

(f) determining a 5-Fluorouracil-based chemotherapeutic regimen for said patient based on the difference in amount of *DPD* mRNA in the amplified sample and the threshold level for *DPD* gene expression.

Claim 28 (previously presented) The method of claim 27, wherein said predetermined threshold level of *DPD* gene expression is about 2.0 to about 2.5 times that of an internal control gene expression level.

Claim 29 (previously presented) The method of claim 27 or 28, wherein said internal control gene is β-actin.

Claim 30 (canceled)

Claim 31 (currently amended) The method of claim 27 or 28, wherein the heating is ~~isolated~~ in the presence of an effective amount of chaotropic agent.

Claim 32 (new) A method for determining a 5-Fluorouracil-based chemotherapeutic regimen for treating a tumor in patient comprising:

(a) obtaining a tumor tissue sample from the patient, and wherein said tumor tissue sample is fixed and paraffin embedded (FPE);

(b) isolating mRNA from said FPE tumor tissue sample, wherein said tumor sample is heated to a temperature in the range of about 50 to about 100°C;

(c) subjecting the mRNA isolated from said FPE tumor tissue sample to amplification using a pair of oligonucleotide primers SEQ ID: 7 and SEQ ID: 8 to obtain an amplified sample;

(d) determining the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in

the amplified sample;

(e) comparing the amount of *Dihydropyrimidine Dehydrogenase* (*DPD*) mRNA in the amplified sample with a predetermined threshold level for *DPD* expression;

(f) determining a 5-Fluorouracil-based chemotherapeutic regimen for said patient based on the difference in amount of *DPD* mRNA in the amplified sample and the threshold level for *DPD* gene expression.

Claim 33 (new) The method of claim 32, wherein said internal control gene is β-actin.

Claim 34 (new) The method of claim 27, wherein the heating is in the presence of an effective amount of chaotropic agent.